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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,508	10/15/2003	Peijun Jiang	2002B140/2	9030
23455	7590	01/19/2006	EXAMINER	
EXXONMOBIL CHEMICAL COMPANY 5200 BAYWAY DRIVE P.O. BOX 2149 BAYTOWN, TX 77522-2149			LU, C CAIXIA	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/687,508

Applicant(s)

JIANG ET AL.

Examiner

Caixia Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-118 is/are pending in the application.
- 4a) Of the above claim(s) 2,3 and 5-118 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/8, 5/4 &amp; 7/6 of 04, 12/5/05</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The request for continued examination (RCE) under 37 C.F.R. §1.114 is acceptable. Without traverse, Applicant had initially elected group I, wherein the elected species is a propylene/ethylene copolymer defined by claim 4, claims 1 and 4, in the reply filed on May 4, 2005. On the presumption that the group I claims are continually reelected for prosecution, an action on the RCE follows.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102/103***

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Karandinos et al. (US 6,747,114).

Karandinos teaches a hot-melt adhesive compositions comprising an semicrystalline polypropylene/ethylene copolymer (Examples 1-4 and Tables 3 and 5). Karandinos' propylene polymers meet the molecular weight and composition limitations of the instant claims.

It is noted that the cited prior art does expressly disclose the Dot-Peel and branching index (g') limitations of the instant claims. However, based on the high peel strengths of Karandinos' polymers as listed in Table 5 and the facts that Karandinos' polymer is substantially similar to applicants' propylene polymer disclosed in the Specification, one would have expected Karandinos' polymers to inherently to have a peel strength of at least higher than the Dot T-peel of 1 Newton or more on Kraft paper

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(reflecting a very low peel strength). Because the propylene polymers of both Karandinos and the instant application are prepared by similar process in the presence of metallocene catalysts, one would have also expected Karandinos' polymers to inherently to have a  $g'$  of less than 0.98.

Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden of proof is shifted to the applicant to show an unobvious difference. In re Fitzgerald, 205 USPQ 594. In re Fessmann, 180 USPQ 324. Applicants have not met their burden to demonstrate an unobvious difference between the claimed product and the products of the prior art examples.

4. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al. (US 6,774,069) and Zhou et al. (US 2002/0123538) respectively.

Zhou teaches a hot-melt adhesive compositions comprising an atactic polypropylene and an isotactic polypropylene (col. 6, lines 38-54; and Examples 1-4) which is structurally substantially identical to those of the propylene polymer blends exemplified in the instant application. Zhou's propylene polymers meet the molecular weight limitations of the instant claims. It is noted that the cited prior art does expressly disclose the Dot-Peel and branching index limitations of the instant claims. Based on the Dynamic peel strength measurement results of the Examples disclose in Table 1 in col. 20, one would realize that Zhou's polypropylene blends have a peel strength higher than Dot T-peel of 1 Newton or more on Kraft paper. It is noted that Zhou does not expressly teach the branch index ( $g'$ ), however, almost all propylene polymer prepared by the conventional catalyst such as Ziegler catalyst and metallocene catalyst are

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having  $g'$  of at least of 0.98, one would have expected those propylene polymers used in the working examples (commercially provided by Sigma-Aldrich) are inherently having branch indexes of 0.98 or less.

Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden of proof is shifted to the applicant to show an unobvious difference. In re Fitzgerald, 205 USPQ 594. In re Fessmann, 180 USPQ 324. Applicants have not met their burden to demonstrate an unobvious difference between the claimed product and the products of the prior art examples.

While Zhou does not disclose the amount of comonomer in propylene polymer, it is well known in the art that incorporate small amount of ethylene in an isotactic polypropylene polymer improves the transparency of polymer and lowers melting temperature and the crystallinity of the polymer which provide better compatibility between the amorphous polymer and the powder polymer. Therefore, it would have been obvious to a skilled artisan at the time the invention was made to employ Zhou's teaching to an isotactic propylene containing small amount of ethylene repeating units to prepare an adhesive with improved the transparency and compatibility and in the absence of any showing criticality and unexpected results.

Similar rejections are also made over Zhou et al. (US 2002/0123538), see paragraphs [0011], [0012], [0014] and [0021], and Examples 1 and 2.

### ***Response to Arguments***

**5.** Applicant's arguments with respect to the previous rejections of record have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.



Caixia Lu, Ph. D.  
Primary Examiner  
January 17, 2006